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## The Virtual Interface Architecture

[Dunning, D.](#) [Regnier, G.](#) [McAlpine, G.](#) [Cameron, D.](#) [Shubert, B.](#) [Berry, F.](#) [Merritt, Gronke, E.](#) [Dodd, C.](#)

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**Abstract:**

This protected, zero-copy, user-level **network** interface architecture reduces overhead for sending and receiving messages between high-performance CPU subsystems and **networks** to less than 10 microseconds when integrated in s

**Index Terms:**

[network interfaces](#) | [VIA](#) | [network interface](#) | [virtual interface architecture](#)

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09/975,029

L Number	Hits	Search Text	DB	Time Stamp
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4	26732	(707/\$ 711/\$).ccls.	USPAT	2004/02/06 16:57
5	241	virtual adj1 interface	USPAT	2004/02/06 16:58
6	6	virtual adj1 logical adj1 unit\$1	USPAT	2004/02/06 16:59
7	25	wrapping near3 network	USPAT	2004/02/06 16:59
8	0	VLUN	USPAT	2004/02/06 16:59
10	3400	RAID	USPAT	2004/02/06 17:00
11	7476	translat\$6 near7 (read write request\$1)	USPAT	2004/02/06 17:01
12	122009	read\$3 near5 writ\$4	USPAT	2004/02/06 17:01

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Search History	2/6/04 4:57 PM	Page 2		

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Search History	2/6/04 5:44:57 PM	Page 3		

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Search History	2/6/04 5:57 PM	Page 4		

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Search History	2/6/04 5:44:57 PM	Page 5		

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Search History	2/6/04 5:44:57 PM	Page 6		

18	10	(virtual adj1 interface) and ((707/205 707/102 707/101 707/103 707/100 711/114).cccls.)	USPAT	2004/02/06 17:05
19	9	((virtual adj1 interface) and ((707/205 707/102 707/101 707/103 707/100 711/114).cccls.)) and ((virtual adj1 logical adj1 unit\$1) (wrapping near3 network) RAID (translat\$6 near7 (read write request\$1)) (read\$3 near5 writ\$4))	USPAT	2004/02/06 17:16
20	3	(wrapping near3 network) and ((virtual adj1 interface) (virtual adj1 logical adj1 unit\$1) (translat\$6 near7 (read write request\$1)) (read\$3 near5 writ\$4))	USPAT	2004/02/06 17:18
21	0	(wrapping near3 network) and (virtual adj1 logical adj1 unit\$1)	USPAT	2004/02/06 17:19
22	0	(wrapping near3 network) and (virtual adj1 interface)	USPAT	2004/02/06 17:19



23	0	(wrapping near3 network) and (((("4980818" "5012407" "5437012" "5857103" "5933570" "5941972" "5987259" "6203425" "6298428" "6301582" "6330709" "6385643" "6493816" "5812753" "5758050" "5390327" "5333277" "5504858" "5519849" "5522031" "6230240" "5542065" "5604902" "5651133" "5659704" "5664187" "5666512" "5774643" "5960451" "6021462" "6047294" "5257362" "5258984" "5392244" "5446855" "5463765" "5546558" "5551002" "5572660" "5572661" "5598549" "5615352" "5671385" "5696934" "5754756" "5778411" "5790774" "5815648" "5819109" "5829053").pn. ) ((("5860079" "5883909" "5896493" "5933834" "5970030" "6009478" "6038676" "6081879" "6141773" "6145028" "6148377" "6157963" "6173293" "6256748" "6269381" "6269453" "6292876" "6295578" "6304942" "6311251" "6366986" "6385706" "6397292" "6397308" "6425053" "6438647"	USPAT	2004/02/06 17:19
Search History	2/6/04 5:57 PM	Page 8		

24	0	(virtual adjl interface) and (((("4980818" "5012407" "5437012" "5857103" "5933570" "5941972" "5987259" "6203425" "6298428" "6301582" "6330709" "6385643" "6493816" "5812753" "5758050" "5390327" "5333277" "5504858" "5519849" "5522031" "6230240" "5542065" "5604902" "5651133" "5659704" "5664187" "5666512" "5774643" "5960451" "6021462" "6047294" "5257362" "5258984" "5392244" "5446855" "5463765" "5546558" "5551002" "5572660" "5572661" "5598549" "5615352" "5671385" "5696934" "5754756" "5778411" "5790774" "5815648" "5819109" "5829053").pn. ) ((("5860079" "5883909" "5896493" "5933834" "5970030" "6009478" "6038676" "6081879" "6141773" "6145028" "6148377" "6157963" "6173293" "6256748" "6269381" "6269453" "6292876" "6295578" "6304942" "6311251" "6366986" "6385706" "6397292" "6397308" "6425053" "6438647"	USPAT	2004/02/06 17:19
Search History	2/6/04 5:57 PM	Page 9		

25	0	(virtual adjl interface) and (((("4980818" "5012407" "5437012" "5857103" "5933570" "5941972" "5987259" "6203425" "6298428" "6301582" "6330709" "6385643" "6493816" "5812753" "5758050" "5390327" "5333277" "5504858" "5519849" "5522031" "6230240" "5542065" "5604902" "5651133" "5659704" "5664187" "5666512" "5774643" "5960451" "6021462" "6047294" "5257362" "5258984" "5392244" "5446855" "5463765" "5546558" "5551002" "5572660" "5572661" "5598549" "5615352" "5671385" "5696934" "5754756" "5778411" "5790774" "5815648" "5819109" "5829053").pn. ) (("5860079" "5883909" "5896493" "5933834" "5970030" "6009478" "6038676" "6081879" "6141773" "6145028" "6148377" "6157963" "6173293" "6256748" "6269381" "6269453" "6292876" "6295578" "6304942" "6311251" "6366986" "6385706" "6397293" "6397308" "6425053" "6438647" .....	USPAT	2004/02/06 17:20
Search History	2/6/04 5:44:57 PM	Page 10		

9	7	creating near3 (virtual adjl interface)	USPAT	2004/02/06 17:22
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